

US EPA ARCHIVE DOCUMENT

MRID
Re: 124473

ENVIRONMENTAL FATE AND EFFECTS DIVISION
ECOLOGICAL EFFECTS BRANCH

List B Phase 4 - Response on Existing Studies Reviewed

CHEMICAL AI NAME: Brodifacoum
CHEMICAL NO.: 112701

CASE NO.: 2755

REVIEWER'S NAME: James J. Goodyear
TELEPHONE NUMBER: 703-557-7726
DATE: January 4, 1991

USE PATTERN(S): In and around buildings.

GUIDELINE NO.: 72-1 (d). Acute toxicity for freshwater fish (TEP).

TITLE: Brodifacoum: Determination of the acute toxicity of a 0.25% W/W formulation to Rainbow trout *Salmo gairdneri*. Submitted by ICI Americas, Inc., Agricultural Products, Wilmington, Delaware 19897. Report No. BL/B/1874. Study No. E038/A.

MRIDS AND DATES OF STUDIES REVIEWED: MRID 124473 (1978) in 92195-011 (1990).

MRIDS AND DATES OF FULLY ACCEPTABLE STUDIES: None.

COMMENTS: Supplemental, $LC_{50} = 0.02$ mg/kg (0.01 - 0.03), NOEL <0.01 mg/kg.

The LC_{50} was calculated with three sets of measured concentrations that were called "series." Since Brodifacoum degrades, the calculation based upon the nominal concentrations is not acceptable. EEB infers that the chemical analysis was not done on aquarium water, but was done on the stock solutions instead. This is inappropriate because of the changes in the concentrations that may be brought about by the fishes' metabolism.

ICI never calculates the LC_{50} based upon measured concentrations.

Little explanation is given for the two "series" of groups. "Series II" appears to have been designed to "fill-in" gaps in the range of concentrations used. EEB infers that the test were conducted separately then their results were combined in order to calculate the LC_{50} .

EEB has made it's calculations by using the "OFF" data and combining the two series. The study could be upgraded to "Core" by explaining the points that have been discussed here and/or recalculating the data. Since LC_{50} s should be reported as "percent active ingredient," EEB has converted the ICI's figures to %ai.



U.S. Environmental Protection Agency

Office of Pesticide Programs Information

History

Results

1 Items Found

MRID

1) 124473

< < > >

[Back to Query](#)

Summary Information For Study 124473

MRID: 124473

Citation Reference: Hill, R. (1979) PP 581: Determination of the Acute Toxicity of For- mulation JFU 5074 to Rainbow Trout ...: BL/B/1874. (Unpublished study received Feb 27, 1979 under 10182-26; prepared by Imperial Chemical Industries, Ltd., Eng., submitted by ICI Americas, Inc., Wilmington, DE; CDL:237703-D)

Author: Hill, R.

Content Category: Incomplete or summarized -- experimental research

Receipt Date: 27-Feb-1979

Laboratory Project #: NO PROJNR

Accession #: 237703 D

Products Tested:

Status: Upgradable (07-Jun-1991)

DP #:

Ingredients

PC Code	CAS #	Ingredient Name
112701	56073-10-0	Brodifacoum
Total Rows: 1		

Laboratory

Laboratory #	Laboratory Name
959804	Imperial Chemical Industries, Ltd./Zeneca
Total Rows: 1	

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